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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,014	11/17/2003	Masataka Shinoda	245426US6	9739

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EXAMINER

NGUYEN, LINH THI

ART UNIT PAPER NUMBER

2627

DATE MAILED: 11/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/713,014	Applicant(s) SHINODA, MASATAKA	
	Examiner Linh T. Nguyen	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeshi (JP Publication number 11273126) in view of Nuss (US Patent number 5789750).

In regards to claim 1, Takeshi discloses an optical lens comprising: an optical material comprising a SiC (Paragraph [0007], lines 5-6). Takeshi does not but Nuss discloses an optical lens made of silicon with a cubic crystal structure (Column 5, lines 49-54). At the time of the invention it would have been obvious to a person of ordinary skill in the art to produce lenses from SiC of Takeshi with a structure of cubic crystal as taught by Nuss. The motivation for doing so would have been to provide silicon lens with especially preferred cubic crystal structure, and ease of cutting and polishing (Column 5, lines 50-54).

In regards to claims 2 and 9, Takeshi discloses an optical lens and recording/reproducing apparatus, wherein said optical lens has a flat objective surface and a convex spherical surface formed opposite to said flat objective surface (Fig. 1, element 16 is shape like a semi-sphere).

In regards to claim 3, Takeshi discloses a condenser lens comprising a first

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optical lens (Fig. 1 element 16) and a second optical lens (Fig. 1, element 15) arranged in this order from an objective surface so that the optical axes of said first and second optical lenses are in line with each other (Fig. 1, elements 15 and 16 are in line); wherein at least said first optical lens is formed from an SiC (Paragraph [0007], lines 5-6). Takeshi does not but Nuss discloses an optical lens made of silicon with a cubic crystal structure (Column 5, lines 49-54). The motivation is the same as claim 1 above.

In regards to claim 4, Takeshi discloses an optical pickup comprising a light source and a condenser lens for converging light emitted from said light source to form a beam spot (Paragraph [0008], lines 3-5), said condenser lens comprising a first optical lens (Fig. 1, element 16) and a second optical lens (Fig. 1, element 15) arranged in this order from an objective surface so that the optical axes of said first and second optical lenses are in line with each other (Fig. 1); wherein said first optical lens is formed from an SiC (Paragraph [0007], lines 5-6). Takeshi does not but Nuss discloses an optical lens made of silicon with a cubic crystal structure (Column 5, lines 49-54). The motivation is the same as claim 1 above.

In regards to claims 6 and 10, Takeshi discloses an optical pickup and recording/reproducing apparatus, wherein the wavelength of said light emitted from said light source is longer than 564 nm (Paragraph [0008], lines 1-3).

In regards to claims 7 and 11, Takeshi discloses an optical pickup and recording/reproducing apparatus, wherein said light source comprises a semiconductor laser (Paragraph [0016], lines 2-7).

In regards to claim 8, Takeshi discloses an optical recording/reproducing

apparatus (Fig. 1) comprising an optical pickup (Fig. 1, element 12) including a light source (Fig. 1, element 10) and a condenser lens for converging light emitted from said light source to form a beam spot (Paragraph [0008], lines 3-5), said condenser lens including a first optical lens (Fig. 1, element 16) and a second optical lens (Fig. 1, element 15) arranged in this order from an objective surface so that the optical axes of said first and second optical lenses are in line with each other (Fig. 1); and control drive means for controllably driving said condenser lens in a focusing direction and/or a tracking direction of an optical recording medium (Fig. 1, element 17); wherein said first optical lens is formed from an SiC (Paragraph [0007], lines 5-6). Takeshi does not but Nuss discloses an optical lens made of silicon with a cubic crystal structure (Column 5, lines 49-54). The motivation is the same as claim 1 above.

In regards to claim 9, Takeshi discloses an optical recording/reproducing apparatus, wherein said first optical lens has a flat objective surface and a convex spherical surface formed opposite to said flat objective surface.

In regards to claim 12, Takeshi discloses an optical recording/reproducing apparatus, wherein the light beam of said light emitted from said light source has an optical axis substantially parallel to the principal surface of said optical recording medium (Fig. 1, element 1 optical disk is parallel with element 10, light source).

In regards to claim 13, Takeshi discloses an optical recording/reproducing apparatus, further comprising means for mounting a plurality of optical recording media spaced from each other; the spacing between adjacent ones of said optical recording

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media being larger than the diameter of the light beam of said light emitted from said light source (Paragraph [0012]).

Response to Arguments

Applicant's arguments filed 9/14/06 have been fully considered but they are not persuasive. Applicant argues the motivation statement for modifying the teaching of Takeshi and Nuss requires "clear and particular evidence." However, Nuss clearly states in column 5, lines 50-54 the motivation for combining a silicon lens with preferred cubic crystal structure for the ease of cutting and polishing. Applicant argues that Nuss and Takeshi cannot be properly combined on page 7. However, Takeshi discloses use of SiC lens (Paragraph [0007], lines 5-6) and Nuss suggests how to implement such materials in lenses using desirable cubic structure (Column 5, lines 49-54).

In response to applicant's argument that Nuss directed to an optical system employing terahertz radiation and Takeshi directed to an optical material, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Therefore, claim 1 is not patentable over of Takeshi in view of Nuss.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh T. Nguyen whose telephone number is 571-272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN

November 16, 2006



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER